

# Common Biases & Heuristics

## Decision Making Biases

Name	Description
Action bias	Sometimes people have an impulse to act in order to gain a sense of control over a situation and eliminate a problem. (Patt & Zeckhauser, 2000). For example, a person may opt for a medical treatment rather than a no-treatment alternative, even though clinical trials have not supported the treatment's effectiveness.
Affect heuristic	Our tendency to rely on recently experienced or readily available data sources for making decisions.
Ambiguity effect	The tendency to avoid options for which missing information makes the probability seem "unknown."
Anchoring or focalism	The tendency to rely too heavily, or "anchor", on one trait or piece of information when making decisions (usually the first piece of information acquired on that subject) and oftentimes irrelevant.
Anthropomorphism or personification	The tendency to characterize animals, objects, and abstract concepts as possessing human-like traits, emotions, and intentions.
Altruism	When people make sacrifices to benefit others without expecting a personal reward (Rushton, 1984). While altruism

	<p>focuses on sacrifices made to benefit others, similar concepts explore making sacrifices to ensure fairness (see inequity aversion and social preferences).</p>
Anticipated regret	<p>The feeling we have when we have only a moment to take a certain action and can't stop imagining how we'll feel if we don't do it.</p>
Association bias	<p>The way our minds connect unrelated things because of coincidence (as how we blame the messengers of bad news).</p>
Attentional bias	<p>The tendency of our perception to be affected by our recurring thoughts.</p>
Automation bias	<p>The tendency to depend excessively on automated systems which can lead to erroneous automated information overriding correct decisions.</p>
Availability heuristic	<p>The tendency to overestimate the likelihood of events with greater "availability" in memory, which can be influenced by how recent the memories are or how unusual or emotionally charged they may be.</p>
Availability cascade	<p>A self-reinforcing process in which a <b>collective belief</b> gains more and more plausibility through its increasing repetition in public discourse (or "repeat something long enough and it will become true").</p>
Aversion to extremes	<p>The tendency to avoid extremes, either too risky or too safe. Too risky of an investment and we tickle our loss aversion bias. Too safe and we have a bit of FOMO. The same applies too expensive and too cheap, which is why restaurants design their menus a certain way</p>

<p><b>Backfire effect</b></p>	<p>The reaction to disconfirming evidence by strengthening one's previous beliefs. cf. <a href="#">Continued influence effect</a>.</p>
<p><b>Bandwagon effect</b></p>	<p>The tendency to do (or believe) things because many other people do (or believe) the same. Related to <a href="#">groupthink</a> and <a href="#">herd behavior</a>.</p>
<p><b>Bait &amp; switch heuristic</b></p>	<p>When we substitute an easy question like “Does this person <i>look</i> knowledgeable?” for a difficult question, “Does this person <i>actually know</i> something about what I need?” (Phil Tetlock)</p>
<p><b>Base rate fallacy or Base rate neglect</b></p>	<p>The tendency to ignore base rate information (generic, general information) and focus on specific information (information only pertaining to a certain case).</p>
<p><b>Belief bias</b></p>	<p>An effect where someone's evaluation of the logical strength of an argument is biased by the believability of the conclusion.</p>
<p><b>Ben Franklin effect</b></p>	<p>A person who has performed a favor for someone is more likely to do another favor for that person than they would be if they had <i>received</i> a favor from that person.</p>
<p><b>Berkson's paradox</b></p>	<p>The tendency to misinterpret statistical experiments involving conditional probabilities.</p>
<p><b>Bias blind spot</b></p>	<p>The tendency to see oneself as less biased than other people, or to be able to identify more cognitive biases in others than in oneself.</p>
<p><b>Bounded rationality</b></p>	<p>A concept proposed by Herbert Simon that challenges the notion of human rationality as implied by the concept of homo economicus. There are limits to our thinking capacity, available information, and time (Simon, 1982). It is similar to the social-</p>



	psychological concept that describes people as “cognitive misers” (Fiske & Taylor, 1991). (See also satisficing.)
Cheerleader effect	The tendency for people to appear more attractive in a group than in isolation.
Choice architecture	Presenting choices in a leading way but still allowing for choices to be made.
Choice overload	Also referred to as ‘overchoice’, the phenomenon of choice overload occurs as a result of too many choices being available to consumers. Choice overload may refer to either choice attributes or alternatives. The greater the number or complexity of choices offered, the more likely a consumer will apply heuristics. Overchoice has been associated with unhappiness (Schwartz, 2004), decision fatigue, going with the default option, as well as choice deferral—avoiding making a decision altogether, such as not buying a product (Iyengar & Lepper, 2000).
Choice-supportive bias	The tendency to remember one's choices as better than they were.
Clustering illusion	The tendency to overestimate the importance of small runs, streaks, or clusters in large samples of random data (that is, seeing phantom patterns). It also addresses why we see faces in clouds but not clouds in faces – we humanize things that aren't really there.
Cobra effect	Setting an incentive that accidentally produces the opposite result to the one intended. Also known as the Perverse Incentive.
Cognitive dissonance	Refers to the uncomfortable tension that can exist between two simultaneous and conflicting ideas or feelings—often as a person realizes that s/he has engaged in a behavior inconsistent with the type of person s/he would like to be, or be

	<p>seen publicly to be. According to the theory, people are motivated to reduce this tension by changing their attitudes, beliefs, or actions. (Festinger, 1957)</p>
Commitment bias	<p>The tendency to be consistent with what we have already done or said we will do in the past, particularly if public. Inconsistency is not a desirable trait; thus, people try to keep their promises and reflect consistency.</p>
Commitment device	<p>A way to lock yourself into following a plan of action that you might not want to do but you know is good for you. In other words, a commitment device is a way to give yourself a reward or punishment to make an empty promise stronger and believable.</p>
Confirmation bias	<p>The tendency to search for, interpret, focus on and remember information in a way that confirms one's preconceptions.</p>
Congruence bias	<p>The tendency to test hypotheses exclusively through direct testing, instead of testing possible alternative hypotheses.</p>
Conjunction fallacy	<p>The tendency to assume that specific conditions are more probable than general ones.</p>
Conservatism (belief revision)	<p>The tendency to <b>revise one's belief</b> insufficiently when presented with new evidence.</p>
Continuation probability signaling	<p>Where we treat each as if our relationship has a future.</p>
Continued influence effect	<p>The tendency to believe previously learned misinformation even after it has been corrected. Misinformation can still influence inferences one generates after a correction has occurred. Also see <i>Backfire effect</i></p>

<p>Contrast effect</p>	<p>The enhancement or reduction of a certain perception's stimuli when compared with a recently observed, contrasting object. If an average looking young adult goes out looking for a date with a supermodel friend, the contrast will work against them. Related to the <b>Cornsweet illusion</b>.</p>
<p>Control premium</p>	<p>Refers to people's willingness to forego potential rewards in order to control (avoid delegation) of their own payoffs.</p>
<p>Courtesy bias</p>	<p>The tendency to give an opinion that is more socially correct than one's true opinion, to avoid offending anyone.</p>
<p>Curse of knowledge</p>	<p>When better-informed people find it extremely difficult to think about problems from the perspective of lesser-informed people.</p>
<p>Declinism</p>	<p>The belief that a society or institution is tending towards decline. Particularly, it is the predisposition to view the past favorably (<b>rosy retrospection</b>) and future negatively.</p>
<p>Decision fatigue</p>	<p>There are psychological costs to making decisions. Since choosing can be difficult and requires effort, just like any other activity, long sessions of decision making can lead to poor choices. Similar to other activities that consume resources required for executive functions, decision fatigue is reflected in self-regulation, such as a diminished ability to exercise self-control (Vohs et al., 2008). (See also choice overload and ego depletion.)</p>
<p>Decision staging</p>	<p>When people make complex or long decisions, such as buying a car, they tend to explore their options successively. This involves deciding what information to focus on, as well as choices between attributes and alternatives</p>



Decoy effect	Preferences for either option A or B change in favor of option B when option C is presented, which is like option B but in no way better.
Default	Default options are pre-set courses of action that take effect if nothing is specified by the decision maker (Thaler & Sunstein, 2008), and setting defaults is an effective tool in choice architecture when there is inertia or uncertainty in decision making (Samson, 2014).
Denomination effect	The tendency to spend more money when it is denominated in small amounts (e.g., coins) rather than large amounts (e.g., bills). We're less likely to break a \$50 than a \$5 bill.
Diderot effect	The way goods are purchased to become part of complementary mosaic of identity and the introduction of a new item, that deviates from that identity, causes a spiral of consumption in an attempt to forge a new cohesive whole. This is central to why lottery winners end up destitute after they've begun to re-create their lives in a luxurious manner.
Disposition effect	The tendency to sell an asset that has accumulated in value and resist selling an asset that has declined in value.
Distinction bias	The tendency to view two options as more dissimilar when evaluating them simultaneously than when evaluating them separately.
Diversification bias	People seek more variety when they choose multiple items for future consumption simultaneously than when they make choices sequentially, i.e. on an 'in the moment' basis. Diversification is non-optimal when people overestimate their need for diversity (Read & Loewenstein, 1995). In other words, sequential choices lead to greater experienced utility. For example, before going on vacation I may upload classical, rock and pop music to my MP3 player, but on the actual trip I may



	<p>mostly end up listening to my favorite rock music. (See also projection bias.)</p>
<p>Dual-system theory</p>	<p>Dual-system models of the human mind contrast automatic, fast, and non-conscious (System 1) with controlled, slow, and conscious (System 2) thinking. Many heuristics and cognitive biases studied by behavioral economists are the result of intuitions, impressions, or automatic thoughts generated by System 1 (Kahneman, 2011). Factors that make System 1's processes more dominant in decision making include cognitive busyness, distraction, time pressure, and positive mood, while System 2's processes tend to be enhanced when the decision involves an important object, has heightened personal relevance, and when the decision maker is held accountable by others (Samson &amp; Voyer, 2012; Samson &amp; Voyer, 2014).</p>
<p>Dunning–Kruger effect</p>	<p>The tendency for unskilled individuals to overestimate their own ability and the tendency for experts to underestimate their own ability. That “the miscalibration of the incompetent stems from an error about the self, whereas the miscalibration of the highly competent stems from an error about others.” Also known as the Delusion of Competence.</p>
<p>Duration neglect</p>	<p>The neglect of the duration of an episode in determining its value</p>
<p>Edison effect</p>	<p>Without testing 1,000 unsuccessful ways to build a light bulb, Edison believed the successful requirements to build the light bulb wouldn't have been clear.</p>
<p>Elimination by aspects heuristic</p>	<p>When decision makers gradually reduce the number of alternatives in a choice set, starting with the aspect that they see as most significant. One cue is evaluated at a time until fewer and fewer alternatives remain in the set of available options (Tversky, 1972); for example, a consumer may first compare a number of television sets on the basis of brand, then screen size, and finally price, etc., until only one option remains.</p>



<p>Empathy gap</p>	<p>The tendency to underestimate the influence or strength of feelings, in either oneself or others. A hot-cold empathy gap occurs when people underestimate the influence of visceral states (e.g. being angry, in pain, or hungry) on their behavior or preferences.</p>
<p>Endowment effect</p>	<p>The tendency for people to demand much more to give up an object than they would be willing to pay to acquire it.</p>
<p>Exaggerated expectation</p>	<p>Based on the estimates, real-world evidence turns out to be less extreme than our expectations (conditionally inverse of the conservatism bias).</p>
<p>Experimenter's or expectation bias</p>	<p>The tendency for experimenters to believe, certify, and publish data that agree with their expectations for the outcome of an experiment, and to disbelieve, discard, or downgrade the corresponding weightings for data that appear to conflict with those expectations.</p>
<p>Fairness</p>	<p>In behavioral science, fairness refers to our social preference for equitable outcomes. This can present itself as inequity aversion, people's tendency to dislike unequal payoffs in their own or someone else's favor. This tendency has been documented through experimental games, such as the ultimatum, dictator, and trust games (Fehr &amp; Schmidt, 1999).</p>
<p>Fear of missing out (FOMO)</p>	<p>Social media has enabled us to connect and interact with others, but the number of options offered to us through these channels is far greater than what we can realistically take up, due to limited time and practical constraints. The popular concept of FoMO, refers to "a pervasive apprehension that others might be having rewarding experiences from which one is absent" (Przybylski et al., 2013). People suffering from FoMO have a strong desire to stay continually informed about what others are doing (see also scarcity, regret aversion, and loss aversion).</p>



<p>Focusing effect/illusion</p>	<p>The tendency to place too much importance on one aspect of an event. / When people are induced to believe that they "must have" a product, they greatly exaggerate the difference that the good will make to the quality of their life.</p>
<p>Forer effect or Barnum effect</p>	<p>The observation that individuals will give high accuracy ratings to descriptions of their personality that supposedly are tailored specifically for them but are in fact vague and general enough to apply to a wide range of people. This effect can provide a partial explanation for the widespread acceptance of some beliefs and practices, such as astrology, fortune telling, graphology, and some types of personality tests.</p>
<p>Framing effect</p>	<p>Drawing different conclusions from the same information, depending on how that information is presented. This technique was part of Tversky and Kahneman's development of prospect theory, which framed gambles in terms of losses or gains (Kahneman &amp; Tversky, 1979a).</p>
<p>Frequency illusion</p>	<p>The illusion in which a word, a name, or other thing that has recently come to one's attention suddenly seems to appear with improbable frequency shortly afterwards (not to be confused with the <a href="#">recency illusion</a> or <a href="#">selection bias</a>). This illusion may explain some examples of the Baader-Meinhof Phenomenon, when someone repeatedly notices a newly learned word or phrase shortly after learning it.</p>
<p>Functional fixedness</p>	<p>Limits a person to using an object only in the way it is traditionally used.</p>
<p>GI Joe fallacy</p>	<p>The misconception that decision making is driven by knowledge. "Knowing is half the battle," said TV cartoon hero GI Joe.</p>
<p>Gambler's fallacy</p>	<p>The tendency to think that future probabilities are altered by past events when they are actually unchanged. The fallacy arises from an erroneous conceptualization of the <a href="#">law of large numbers</a>. For example, "I've flipped heads with this coin five</p>

	times consecutively, so the chance of tails coming out on the sixth flip is much greater than heads."
Goal gradient effect	The increased effort we naturally put forth as we approach the end goal.
Habit	Habit is an automatic and rigid pattern of behavior in specific situations, which is usually acquired through repetition and develops through associative learning (see also System 1 in dual-system theory), when actions become paired repeatedly with a context or an event (Dolan et al., 2010). ‘
Hard–easy effect	Based on a specific level of task difficulty, the confidence in judgments is too conservative and not extreme enough
Hindsight bias	Sometimes called the "I-knew-it-all-along" effect, the tendency to see past events as being predictable before they happened.
Honesty	In both business and our private lives, relationships are made and broken based on our trust in the other party’s honesty and reciprocity.
Hot-hand fallacy	The "hot-hand fallacy" (also known as the "hot hand phenomenon" or "hot hand") is the fallacious belief that a person who has experienced success with a random event has a greater chance of further success in additional attempts.
Hyperbolic discounting	Discounting is the tendency for people to have a stronger preference for more immediate payoffs relative to later payoffs. Hyperbolic discounting leads to choices that are inconsistent over time – people make choices today that their future selves would prefer not to have made, despite using the same reasoning. Also known as current moment bias, present-bias, and related to <a href="#">Dynamic inconsistency</a> .



<p>Identifiable victim effect</p>	<p>The tendency to respond more strongly to a single identified person at risk than to a large group of people at risk.</p>
<p>Identity economics</p>	<p>Identity economics describes the idea that we make economic choices based on monetary incentives and our identity. A person's sense of self or identity affects economic outcomes. This was outlined in Akerlof &amp; Kranton's (2000) seminal paper which expanded the standard utility function to include pecuniary payoffs and identity economics in a simple game-theoretic model of behavior, further integrating psychology and sociology into economic thinking.</p>
<p>IKEA effect</p>	<p>The tendency for people to place a disproportionately high value on objects that they partially assembled themselves, such as furniture from <a href="#">IKEA</a>, regardless of the quality of the end result.</p>
<p>Incentive</p>	<p>An incentive is something that motivates an individual to perform an action. It is therefore essential to the study of any economic activity. Incentives, whether they are intrinsic or extrinsic, can be effective in encouraging behavior change, such as ceasing to smoke, doing more exercise, complying with tax laws or increasing public good contributions. Traditionally the importance of intrinsic incentives was underestimated, and the focus was put on monetary ones. Monetary incentives may backfire and reduce the performance of agents or their compliance with rules (see also over-justification effect), especially when motives such as the desire to reciprocate or the desire to avoid social disapproval (see social norms) are neglected. These intrinsic motives often help to understand changes in behavior (Fehr &amp; Falk, 2002).</p>
<p>Illusion of control</p>	<p>The tendency to overestimate one's degree of influence over other external events.</p>
<p>Illusion of validity</p>	<p>Belief that incremental acquired information generates additional relevant data for predictions, even when it evidently does not.</p>

<p>Illusory progress to goal</p>	<p>Increased effort due the perception that we are closer to the goal than we really are.</p>
<p>Illusory correlation</p>	<p>Inaccurately perceiving a relationship between two unrelated events.</p>
<p>Illusory truth effect</p>	<p>A tendency to believe that a statement is true if it is <b>easier to process</b>, or if it has been <b>stated multiple times</b>, regardless of its actual veracity. These are specific cases of <b>truthiness</b>.</p>
<p>Impact bias</p>	<p>The tendency to overestimate the length or the intensity of the impact of future feeling states.</p>
<p>Inequity aversion</p>	<p>Human resistance to “unfair” outcomes is known as ‘inequity aversion’, which occurs when people prefer fairness and resist inequalities.</p>
<p>Inertia</p>	<p>In behavioral economics, inertia is the endurance of a stable state associated with inaction and the concept of status quo bias (Madrian &amp; Shea 2001). In social psychology the term is sometimes also used in relation to persistence in (or commitments to) attitudes and relationships. Decision inertia is frequently counter-acted by setting defaults.</p>
<p>Information avoidance</p>	<p>Information avoidance in behavioral economics (Golman et al., 2017) refers to situations in which people choose not to obtain knowledge that is freely available. Active information avoidance includes physical avoidance, inattention, the biased interpretation of information (see also confirmation bias) and even some forms of forgetting</p>
<p>Information bias</p>	<p>The tendency to seek information even when it cannot affect action.</p>



<a href="#">Intertemporal choice</a>	Intertemporal choice is a field of research concerned with the relative value people assign to payoffs at different points in time. It generally finds that people are biased towards the present (see present bias) and tend to discount the future (see time discounting and dual-self model).
<a href="#">Insensitivity to sample size</a>	The tendency to under-expect variation in small samples.
<a href="#">Irrational escalation</a>	The phenomenon where people justify increased investment in a decision, based on the cumulative prior investment, despite new evidence suggesting that the decision was probably wrong. Also known as the <b>sunk cost fallacy</b> .
<a href="#">Lallapaloosa effect</a>	When multiple biases are acting in concert at the same time.
<a href="#">Law of the instrument</a>	"If all you have is a hammer, everything looks like a nail."
<a href="#">Less-is-better effect</a>	The tendency to prefer a smaller set to a larger set judged separately, but not jointly.
<a href="#">Look-elsewhere effect</a>	An apparently statistically significant observation may have actually arisen by chance because of the size of the parameter space to be searched.
<a href="#">Loss aversion</a>	The disutility of giving up an object is greater than the utility associated with acquiring it. (see also <a href="#">Sunk cost effects</a> and <a href="#">endowment effect</a> ).
<a href="#">Maslow's hammer</a>	The idea that we can be lulled into an overreliance on our most familiar tools—a bias also known as the "law of the instrument."



McNamara fallacy	Relying solely on metrics in complex situations and losing sight of the bigger picture.
Mere exposure effect	The tendency to express undue liking for things merely because of familiarity with them.
Money illusion	The tendency to concentrate on the nominal value (face value) of money rather than its value in terms of purchasing power.
Moral credential effect	The tendency of a track record of non-prejudice to increase subsequent prejudice.
Negativity bias or Negativity effect	Psychological phenomenon by which humans have a greater recall of unpleasant memories compared with positive memories. (see also actor-observer bias, group attribution error, positivity effect, and negativity effect).
Neglect of probability	The tendency to completely disregard probability when making a decision under uncertainty. (Opposite of the overweighting of small probabilities.)
Normalcy bias	The refusal to plan for, or react to, a disaster which has never happened before.
Not invented here	Aversion to contact with or use of products, research, standards, or knowledge developed outside a group. Related to IKEA effect.
Numerosity bias	Epitomized by the quote from Yogi Berra: "Cut my pizza in to four slices, I can't eat eight." Despite a difference in the expression of amount, the size of the resource (i.e., the pie) remains the same, but we don't see it that way. The numerosity bias explains that individuals tend to over-infer



	quantity when it is represented with higher numeric values or bigger numbers (2,000 cents vs. \$2.00).
Observer-expectancy effect	When a researcher expects a given result and therefore unconsciously manipulates an experiment or misinterprets data in order to find it (see also <a href="#">subject-expectancy effect</a> ).
Ockham's broom	Attributable to Sydney Brenner, it is the principle whereby inconvenient facts are swept under the carpet in the interests of a clear interpretation of a messy reality.
Ockham's razor	The principle whereby gratuitous suppositions are shaved from the interpretation of facts. Created by a Franciscan monk, William of Ockham, in the fourteenth century.
Omission bias	The tendency to judge harmful actions as worse, or less moral, than equally harmful omissions (inactions).
Optimism bias	The tendency to be over-optimistic, overestimating favorable and pleasing outcomes (see also <a href="#">wishful thinking</a> , <a href="#">valence effect</a> , <a href="#">positive outcome bias</a> ).
Ostrich effect	Ignoring an obvious (negative) situation.
Outcome bias	The tendency to judge a decision by its eventual outcome instead of based on the quality of the decision at the time it was made.
Overconfidence effect	Excessive confidence in one's own answers to questions. For example, for certain types of questions, answers that people rate as "99% certain" turn out to be wrong 40% of the time.
Pareidolia	A vague and random stimulus (often an image or sound) is perceived as significant, e.g., seeing images of animals or





	faces in clouds, the <b>man in the moon</b> , and hearing non-existent <b>hidden messages</b> on records played in reverse.
<b>Pessimism bias</b>	The tendency for some people, especially those suffering from <b>depression</b> , to overestimate the likelihood of negative things happening to them.
<b>Planning fallacy</b>	The tendency to underestimate task-completion times.
<b>Post-purchase rationalization</b>	The tendency to persuade oneself through rational argument that a purchase was good value.
<b>Pro-innovation bias</b>	The tendency to have an excessive optimism towards an invention or innovation's usefulness throughout society, while often failing to identify its limitations and weaknesses.
<b>Projection bias</b>	The tendency to overestimate how much our future selves share one's current preferences, thoughts and values, thus leading to sub-optimal choices.
<b>Pseudocertainty effect</b>	The tendency to make risk-averse choices if the expected outcome is positive, but make risk-seeking choices to avoid negative outcomes.
<b>Pseudo set framing</b>	An arbitrary set manufactured for the sole purpose of creating the idea of wholeness
<b>Reactance</b>	The urge to do the opposite of what someone wants you to do out of a need to resist a perceived attempt to constrain your freedom of choice (see also <b>Reverse psychology</b> ).
<b>Reactive devaluation</b>	Devaluing proposals only because they purportedly originated with an adversary.

<p>Recency illusion</p>	<p>The illusion that a word or language usage is a recent innovation when it is in fact long-established (see also <a href="#">frequency illusion</a>).</p>
<p>Regressive bias</p>	<p>A certain state of mind wherein high values and high likelihoods are overestimated while low values and low likelihoods are underestimated.</p>
<p>Restraint bias</p>	<p>The tendency to overestimate one's ability to show restraint in the face of temptation or to manage our self-control.</p>
<p>Rhyme as reason effect</p>	<p>Rhyming statements are perceived as more truthful. A famous example being used in the O.J Simpson trial with the defense's use of the phrase "If the gloves don't fit, then you must acquit."</p>
<p>Risk compensation / Peltzman effect</p>	<p>The tendency to take greater risks when perceived safety increases.</p>
<p>Selective perception</p>	<p>The tendency for expectations to affect perception.</p>
<p>Semmelweis reflex</p>	<p>The tendency to reject new evidence that contradicts a paradigm.</p>
<p>Sexual over-perception bias / sexual under-perception bias</p>	<p>The tendency to over/underestimate sexual interest of another person in oneself.</p>
<p>Social comparison bias</p>	<p>The tendency, when making hiring decisions, to favor potential candidates who don't compete with one's own particular strengths.</p>
<p>Social desirability bias</p>	<p>The tendency to over-report socially desirable characteristics or behaviors in oneself and under-report socially undesirable characteristics or behaviors.</p>



<p>Somatic marker theory</p>	<p>Emotional processes guide (or bias) behavior, particularly decision-making. "<b>Somatic markers</b>" are feelings in the body that are associated with emotions, such as the association of rapid heartbeat with anxiety or of nausea with disgust.</p>
<p>Status quo bias</p>	<p>The tendency to like things to stay relatively the same (see also <a href="#">loss aversion</a>, <a href="#">endowment effect</a>, and <a href="#">system justification</a>).</p>
<p>Stereotyping</p>	<p>Expecting a member of a group to have certain characteristics without having actual information about that individual.</p>
<p>Subadditivity effect</p>	<p>The tendency to judge probability of the whole to be less than the probabilities of the parts.</p>
<p>Subjective validation</p>	<p>Perception that something is true if a subject's belief demands it to be true. Also assigns perceived connections between coincidences.</p>
<p>Survivorship bias</p>	<p>Concentrating on the people or things that "survived" some process and inadvertently overlooking those that didn't because of their lack of visibility. Similar to how people process lucky breaks in their lives as brilliant decisions rather than fortunate coincidences.</p>
<p>Temporal construal</p>	<p>Near-term events are valued in very concrete ways, but distant-term events are valued in very vague ways. Similar to hyperbolic discounting.</p>
<p>Time-saving bias</p>	<p>Underestimations of the time that could be saved (or lost) when increasing (or decreasing) from a relatively low speed and overestimations of the time that could be saved (or lost) when increasing (or decreasing) from a relatively high speed.</p>



Third-person effect	Belief that mass communicated media messages have a greater effect on others than on themselves.
Triviality / Parkinson's Law of	The tendency to give disproportionate weight to trivial issues. Also known as bikeshedding, this bias explains why an organization may avoid specialized or complex subjects, such as the design of a nuclear reactor, and instead focus on something easy to grasp or rewarding to the average participant, such as the design of an adjacent bike shed.
Unit bias	The tendency to want to finish a given unit of a task or an item. Strong effects on the consumption of food in particular.
Warm glow	When someone feels good for helping a charity, but does not pay attention to the actual return to the charity.
Weber–Fechner law	Difficulty in comparing small differences in large quantities.
Well-travelled road effect	Underestimation of the duration taken to traverse oft-traveled routes and overestimation of the duration taken to traverse less familiar routes.
Winner's curse	In mostly auction environments, the winner often over-bids the optimal value. Related to the <b>endowment effect</b> .
Zero-risk bias	Preference for reducing a small risk to zero over a greater reduction in a larger risk.
Zero-sum bias	A bias whereby a situation is perceived to be like a zero-sum game (i.e., one person gains at the expense of another).
W.O.O.P.	We tend to focus on our ideal outcome (I want to lose weight) rather than the obstacles we'll face to get there (pizza is

delicious). Gabriele Oettingen developed a tactic to overcome hurdles.

First you identify your WISH (losing weight) and imagine the OUTCOME (having lost weight). Then you think about a likely OBSTACLE (I love pizza) and make a concrete PLAN to get around it (avoid all pizzerias).

## Social Biases

Name	Description
Actor–observer bias	The tendency for explanations of other individuals' behaviors to overemphasize the influence of their personality and underemphasize the influence of their situation (see also <a href="#">Fundamental attribution error</a> ), and for explanations of one's own behaviors to do the opposite (that is, to overemphasize the influence of our situation and underemphasize the influence of our own personality).
Authority bias	The tendency to attribute greater accuracy to the opinion of an authority figure (unrelated to its content) and be more influenced by that opinion.
Cherry picking	Selecting results that fit your claim and excluding those that don't.
Coleman's Boat	A model developed by sociologist James Coleman, PhD (U of Chicago) that includes both macro and micro social exchanges in examining how things change. Macro (societal) changes happen by influences of individuals and Micro (individuals) change due to societal influences. Both are at play.
Defensive attribution hypothesis	Attributing more blame to a harm-doer as the outcome becomes more severe or as personal or situational <a href="#">similarity</a> to the victim increases.
Egocentric bias	Occurs when people claim more responsibility for themselves for the results of a joint action than an outside observer would credit them with.
Extrinsic incentives bias	An exception to the <i>fundamental attribution error</i> , when people view others as having (situational) extrinsic motivations and (dispositional) intrinsic motivations for oneself
False causality	Falsely assuming when two events appear related, that one must have caused the other.

<p><b>False consensus effect</b></p>	<p>The tendency for people to overestimate the degree to which others agree with them.</p>
<p><b>Forer effect (aka Barnum effect)</b></p>	<p>The tendency to give high accuracy ratings to descriptions of their personality that supposedly are tailored specifically for them but are in fact vague and general enough to apply to a wide range of people. For example, <a href="#">horoscopes</a>.</p>
<p><b>Fundamental attribution error</b></p>	<p>The tendency for people to over-emphasize personality-based explanations for behaviors observed in others while under-emphasizing the role and power of situational influences on the same behavior (see also actor-observer bias, <a href="#">group attribution error</a>, positivity effect, and <a href="#">negativity effect</a>).</p>
<p><b>Group attribution error</b></p>	<p>The biased belief that the characteristics of an individual group member are reflective of the group as a whole or the tendency to assume that group decision outcomes reflect the preferences of group members, even when information is available that clearly suggests otherwise.</p>
<p><b>Hawthorne effect</b></p>	<p>The act of monitoring someone can affect their behavior, leading to spurious findings. Also known as the Observer effect.</p>
<p><b>Halo effect</b></p>	<p>The tendency for a person's positive or negative traits to "spill over" from one personality area to another in others' perceptions of them (see also <a href="#">physical attractiveness stereotype</a>).</p>
<p><b>Hedonic treadmill</b></p>	<p>The way we adapt to changes such as increases in our incomes with increases in expenses. Just as the happiness that comes with the ownership of a new gadget or salary raise will wane over time, even the negative effect of life events such as bereavement or disability on subjective wellbeing tends to level off, to some extent (Frederick &amp; Loewenstein, 1999). When this happens, people return to a relatively stable baseline of happiness. It has been suggested that the repetition of smaller positive experiences ('hedonic boosts'), such as exercise or religious practices, has a more lasting effect on our wellbeing than major life events (Mochon, Norton, &amp; Ariely, 2008).</p>

Horn effect	The exact opposite of the Halo Effect. When you perform poorly at first, you can easily get pegged as a low-performer even if you work hard enough to disprove that notion.
Illusion of asymmetric insight	People perceive their knowledge of their peers to surpass their peers' knowledge of them.
Illusion of external agency	When people view self-generated preferences as instead being caused by insightful, effective and benevolent agents.
Illusion of transparency	People overestimate others' ability to know them, and they also overestimate their ability to know others.
Illusory superiority	Overestimating one's desirable qualities, and underestimating undesirable qualities, relative to other people. (Also known as "Lake Wobegon effect", "better-than-average effect", or "superiority bias".)
Ingroup bias	The tendency for people to give preferential treatment to others they perceive to be members of their own groups.
Just-world hypothesis	The tendency for people to want to believe that the world is fundamentally just, causing them to rationalize an otherwise inexplicable injustice as deserved by the victim(s).
Licensing effect	The subconscious phenomenon whereby increased confidence and security in one's self-image or self-concept tends to make that individual worry less about the consequences of subsequent immoral behavior and, therefore, more likely to make immoral choices and act immorally.
Liking bias	The more we like someone, the more inclined we are to buy from them or help them.





Moral luck	The tendency for people to ascribe greater or lesser moral standing based on the outcome of an event.
Naïve cynicism	Expecting more <i>egocentric bias</i> in others than in oneself.
Naïve realism	The belief that we see reality as it really is – objectively and without bias; that the facts are plain for all to see; that rational people will agree with us; and that those who don't are either uninformed, lazy, irrational, or biased.
Outgroup homogeneity bias	Individuals see members of their own group as being relatively more varied than members of other groups.
Pratfall effect	Admitting weakness is a tangible demonstration of honesty and, therefore, makes other claims more believable.
Relative deprivation theory	We compare ourselves to those in our immediate circle – not the larger whole. This leads high-performing, smart people to feel less so when they are grouped with other high-performing smart people.
Self-serving bias	The tendency to claim more responsibility for successes than failures. It may also manifest itself as a tendency for people to evaluate ambiguous information in a way beneficial to their interests (see also <a href="#">group-serving bias</a> ).
Shared information bias	Known as the tendency for group members to spend more time and energy discussing information that all members are already familiar with (i.e., shared information), and less time and energy discussing information that only some members are aware of (i.e., unshared information).
Sociability bias of language	The disproportionately higher representation of words related to social interactions, in comparison to words related to physical or mental aspects of behavior, in most languages. This bias attributed to nature of language as a tool facilitating human interactions. When verbal descriptors of human behavior are used as a source of information, sociability bias of such descriptors emerges in



	factor-analytic studies as a factor related to pro-social behavior (for example, of Extraversion factor in the <a href="#">Big Five personality traits</a> )
<a href="#">Social proof or Herd behavior</a>	How people assume the actions of others in an attempt to reflect correct behavior in a given situation. Social proof is considered prominent in ambiguous social situations and is driven by the assumption that the surrounding people possess more knowledge about the current situation. It is a form of conformity or compliance. (Cialdini) It is particularly relevant in the domain of finance, where it has been discussed in relation to the collective irrationality of investors, including stock market bubbles (Banerjee, 1992).
<a href="#">System justification</a>	The tendency to defend and bolster the status quo. Existing social, economic, and political arrangements tend to be preferred, and alternatives disparaged, sometimes even at the expense of individual and collective self-interest. (See also status quo bias.)
<a href="#">Trait ascription bias</a>	The tendency for people to view themselves as relatively variable in terms of personality, behavior, and mood while viewing others as much more predictable.
<a href="#">Top dog effect</a>	When powerful people work together on a short-term project, their output (persistence, creativity, agreement) diminishes.
<a href="#">Twaddle tendency</a>	Using many words to disguise intellectual laziness.
<a href="#">Ultimate attribution error</a>	Similar to the fundamental attribution error, in this error a person is likely to make an internal attribution to an entire group instead of the individuals within the group.
<a href="#">Worse-than-average effect</a>	A tendency to believe ourselves to be worse than others at tasks which are difficult.

## Memory Biases

Name	Description
Bizarreness effect	Bizarre material is better remembered than common material.
Choice-supportive bias	In a self-justifying manner retroactively ascribing one's choices to be more informed than they were when they were made.
Change bias	After an investment of effort in producing change, remembering one's past performance as more difficult than it actually was.
Childhood amnesia	The retention of few memories from before the age of four.
Conservatism or Regressive bias	Tendency to remember high values and high likelihoods / probabilities / frequencies as lower than they actually were and low ones as higher than they actually were. Based on the evidence, memories are not extreme enough <sup>[69][70]</sup>
Consistency bias	Incorrectly remembering one's past attitudes and behavior as resembling present attitudes and behavior.
Context effect	That cognition and memory are dependent on context, such that out-of-context memories are more difficult to retrieve than in-context memories (e.g., recall time and accuracy for a work-related memory will be lower at home, and vice versa)
Cross-race effect	The tendency for people of one race to have difficulty identifying members of a race other than their own.
Cryptomnesia	A form of <i>misattribution</i> where a memory is mistaken for imagination, because there is no subjective experience of it being a memory.



<b>Egocentric bias</b>	Recalling the past in a self-serving manner, e.g., remembering one's exam grades as being better than they were, or remembering a caught fish as bigger than it really was.
<b>Fading affect bias</b>	A bias in which the emotion associated with unpleasant memories fades more quickly than the emotion associated with positive events.
<b>False memory</b>	A form of <i>misattribution</i> where imagination is mistaken for a memory.
<b>Generation effect (Self-generation effect)</b>	That self-generated information is remembered best. For instance, people are better able to recall memories of statements that they have generated than similar statements generated by others.
<b>Google effect</b>	The tendency to forget information that can be found readily online by using Internet search engines.
<b>Hindsight bias</b>	The inclination to see past events as being more predictable than they actually were; also called the "I-knew-it-all-along" effect. This bias can lead to distorted judgments about the probability of an event's occurrence, because the outcome of an event is perceived as if it had been predictable. It may also lead to distorted memory for judgments of factual knowledge. Hindsight bias can be a problem in legal decision-making. In medical malpractice suits, for example, jurors' hindsight bias tends to increase with the severity of the outcome (e.g. injury or death) (Harley, 2007).
<b>Humor effect</b>	That humorous items are more easily remembered than non-humorous ones, which might be explained by the distinctiveness of humor, the increased cognitive processing time to understand the humor, or the emotional arousal caused by the humor.
<b>Ideometer effect</b>	How our thoughts and memories can make us feel real emotions. This is why actors envision terrible scenarios, such as the death of a loved one, in order to make themselves cry on cue and activities such as cataloging what you're grateful for can have such a profound, positive impact on your wellbeing.



<a href="#">Illusion of truth effect</a>	That people are more likely to identify as true statements those they have previously heard (even if they cannot consciously remember having heard them), regardless of the actual validity of the statement. In other words, a person is more likely to believe a familiar statement than an unfamiliar one.
<a href="#">Illusory correlation</a>	Inaccurately remembering a relationship between two events.
<a href="#">Lag effect</a>	The phenomenon whereby learning is greater when studying is spread out over time, as opposed to studying the same amount of time in a single session. See also <a href="#">spacing effect</a> .
<a href="#">Leveling and sharpening</a>	Memory distortions introduced by the loss of details in a recollection over time, often concurrent with sharpening or selective recollection of certain details that take on exaggerated significance in relation to the details or aspects of the experience lost through leveling. Both biases may be reinforced over time, and by repeated recollection or re-telling of a memory.
<a href="#">Levels-of-processing effect</a>	That different methods of encoding information into memory have different levels of effectiveness.
<a href="#">List-length effect</a>	A smaller percentage of items are remembered in a longer list, but as the length of the list increases, the absolute number of items remembered increases as well.
<a href="#">Misinformation effect</a>	Memory becoming less accurate because of interference from the way that questions are asked or from <i>post-event information</i> .
<a href="#">Modality effect</a>	That memory recall is higher for the last items of a list when the list items were received via speech than when they were received through writing.

Mood-congruent memory bias	The improved recall of information congruent with one's current mood.
Next-in-line effect	That a person in a group has diminished recall for the words of others who spoke immediately before himself, if they take turns speaking.
Part-list cueing effect	That being shown some items from a list and later retrieving one item causes it to become harder to retrieve the other items.
Peak-end rule	That people seem to perceive not the sum of an experience but the average of how it was at its peak (e.g., pleasant or unpleasant) and how it ended.
Persistence	The unwanted recurrence of memories of a <b>traumatic event</b> .
Picture superiority effect	The notion that concepts that are learned by viewing pictures are more easily and frequently recalled than are concepts that are learned by viewing their written word form counterparts.
Positivity effect	That older adults favor positive over negative information in their memories.
Primacy effect, recency effect & serial position effect	That items near the end of a sequence are the easiest to recall, followed by the items at the beginning of a sequence; items in the middle are the least likely to be remembered.
Processing difficulty effect	That information that takes longer to read and is thought about more (processed with more difficulty) is more easily remembered.
Reminiscence bump	The recalling of more personal events from adolescence and early adulthood than personal events from other lifetime periods.



Rosy retrospection	The remembering of the past as having been better than it really was.
Self-relevance effect	That memories relating to the self are better recalled than similar information relating to others.
Source confusion	Confusing episodic memories with other information, creating distorted memories.
Spacing effect	That information is better recalled if exposure to it is repeated over a long span of time rather than a short one.
Spotlight effect	The tendency to overestimate the amount that other people notice your appearance or behavior.
Stereotypical bias	Memory distorted towards stereotypes (e.g., racial or gender), e.g., "black-sounding" names being misremembered as names of criminals.
Suffix effect	Diminishment of the recency effect because a sound item is appended to the list that the subject is <i>not</i> required to recall.
Suggestibility	A form of misattribution where ideas suggested by a questioner are mistaken for memory.
Telescoping effect	The tendency to displace recent events backward in time and remote events forward in time, so that recent events appear more remote, and remote events, more recent.
Testing effect	The fact that you more easily remember information you have read by rewriting it instead of rereading it.
Tip of the tongue phenomenon	When a subject is able to recall parts of an item, or related information, but is frustratingly unable to recall the whole item. This is thought to be

	<p>an instance of "blocking" where multiple similar memories are being recalled and interfere with each other.</p>
Travis Syndrome	<p>Overestimating the significance of the present. It is related to the enlightenment <a href="#">Idea of Progress</a> and <a href="#">chronological snobbery</a> with possibly an <a href="#">appeal to novelty logical fallacy</a> being part of the bias.</p>
Verbatim effect	<p>That the "gist" of what someone has said is better remembered than the verbatim wording. This is because memories are representations, not exact copies.</p>
<a href="#">Von Restorff effect</a>	<p>That an item that sticks out is more likely to be remembered than other items</p>
<a href="#">Zeigarnik effect</a>	<p>How people remember uncompleted or interrupted tasks better than completed tasks. In Gestalt psychology, the <b>Zeigarnik effect</b> has been used to demonstrate the general presence of Gestalt phenomena: not just appearing as perceptual effects, but also present in cognition.</p>

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